

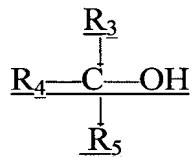
Application No. 10/758,794
Amendment Dated March 15, 2006
Reply to Office Action of December 15, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please cancel claims 2-5, 9, 12-15, 19, 22, 25-28, 32 and 35, and amend claims 1, 6-8, 11, 16-18, 24 and 29-31.

1. (Currently Amended) A method of minimizing toxicity of a retinoid having a carboxyl group, comprising the step of esterifying the carboxyl group with a highly sterically hindered alcohol, wherein the sterically hindered alcohol comprises a tertiary alcohol having the formula



where R₃, R₄ and R₅ which may be the same or different are each independently selected from the group consisting of a straight chain or branched alkyl group in all isomeric forms having 1 to 10 carbon atoms, and an aryl group; and formulating said ester derivative for oral or topical administration.

2-5. (Canceled)

6. (Currently Amended) The method of claim 5-1 wherein said alkyl group has 1 to 5 carbon atoms.

7. (Currently Amended) The method of claim 5-1 wherein the alcohol is t-butyl alcohol.

8. (Currently Amended) The method of claim 5-1 wherein the alcohol is pinacol.

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9. (Cancelled)

10. (Original) The method of claim 1 wherein the retinoid is selected from the group consisting of

all-trans-retinoic acid;

9-cis-retinoic acid;

11-cis-retinoic acid;

13-cis-retinoic acid;

9,13-di-cis-retinoic acid;

TTNPB;

TTNN;

TTAB;

UAB8;

AM80;

AM580;

AM555S;

AGN 193836;

AGN 190299;

CD 2019;

CD 417;

R_o 48-2249;

R_o 44-4753;

R_o 10-9359;

SR 11254;

BMS 185354;

AGN 190299;

CD 437 (AHPN);

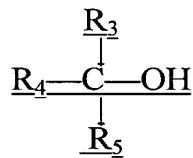
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SR 11247;
SR 11217;
SR 11237;
AGN 191701;
LDG 100268;
LDG 100568;
LGD 100754;
R_o 25-7386;
BMS 188970;
SR 11004; and
SR 11203.

11. (Currently Amended) A method of reducing the toxicity of a retinoid which comprises:

selecting a retinoid having a carboxyl group and having a desirable in vivo therapeutic activity;

selecting a highly sterically hindered alcohol which when reacted with the carboxyl group of the retinoid will provide an ester derivative that will modify the in vivo activity profile of said retinoid by reducing its in vivo toxicity wherein the sterically hindered alcohol comprises a tertiary alcohol having the formula



where R₃, R₄ and R₅ which may be the same or different are each independently selected from the group consisting of a straight chain or branched alkyl group in all isomeric forms having 1 to 10 carbon atoms, and an aryl group; and

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modifying the retinoid by derivatizing the carboxyl group with said highly sterically hindered alcohol to obtain said ester derivative; and
formulating said ester derivative for oral or topical administration.

12-15. (Canceled)

16. (Currently Amended) The method of claim ~~15-11~~ wherein said alkyl group has one to five carbon atoms.

17. (Currently Amended) The method of claim ~~15-11~~ wherein the alcohol is t-butyl alcohol.

18. (Currently Amended) The method of claim ~~15-11~~ wherein the alcohol is pinacol.

19. (Canceled)

20. (Original) The method of claim 11 wherein the retinoid is selected from the group consisting of

all-trans-retinoic acid;

9-cis-retinoic acid;

11-cis-retinoic acid;

13-cis-retinoic acid;

9,13-di-cis-retinoic acid;

TTNPB;

TTNN;

TTAB;

UAB8;

AM80;

AM580;

AM555S;

AGN 193836;

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AGN 190299

CD 2019;

CD 417;

R_o 48-2249;

R_o 44-4753;

R_o 10-9359;

SR 11254;

BMS 185354;

AGN 190299;

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LDG 100268;

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R_o 25-7386;

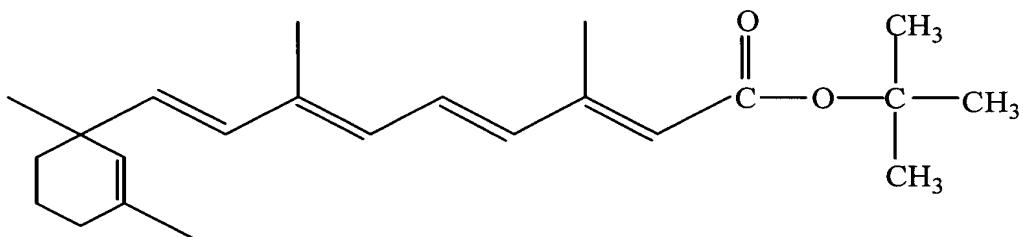
BMS 188970;

SR 11004; and

SR 11203.

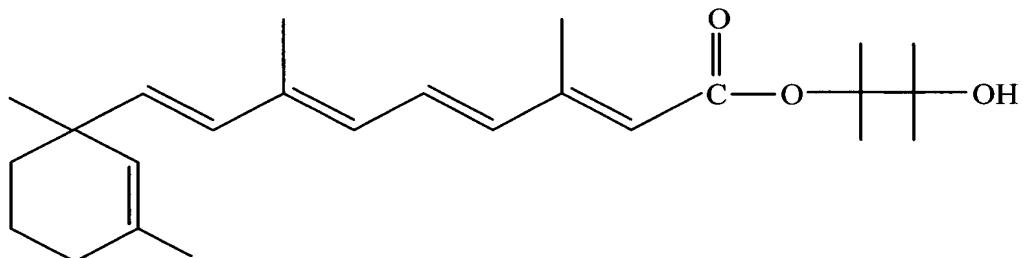
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21. (Original) The method of claim 11 wherein said ester derivative has the formula:



22. (Canceled)

23. (Original) The method of claim 11 wherein said ester derivative has the formula:

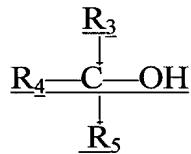


24. (Currently Amended) A method of modulating the activity profile of a retinoid, comprising the steps of:

selecting a retinoid having a carboxyl group and having an in vivo therapeutic activity profile; and

prolonging the activity profile of said retinoid by:

(a) selecting a highly sterically hindered alcohol which is hydrolyzable in vivo to the carboxyl group at a desired rate wherein the sterically hindered alcohol comprises a tertiary alcohol having the formula



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where R₃, R₄ and R₅ which may be the same or different are each independently selected from the group consisting of a straight chain or branched alkyl group in all isomeric forms having 1 to 10 carbon atoms, and an aryl group; and

(b) providing an esterified form of said retinoid by derivatizing the carboxyl group with said hindered alcohol, to obtain an ester derivative; and
formulating said ester derivative for oral or topical administration.

25-28. (Canceled)

29. (Currently Amended) The method of claim 28-24 wherein said alkyl group has 1 to 5 carbon atoms.

30. (Currently Amended) The method of claim 28-24 wherein the alcohol is t-butyl alcohol.

31. (Currently Amended) The method of claim 28-24 wherein the alcohol is pinacol.

32. (Canceled)

33. (Original) The method of claim 24 wherein the retinoid is selected from the group consisting of

all-trans-retinoic acid;

9-cis-retinoic acid;

11-cis-retinoic acid;

13-cis-retinoic acid;

9,13-di-cis-retinoic acid;

TTNPB;

TTNN;

TTAB;

UAB8;

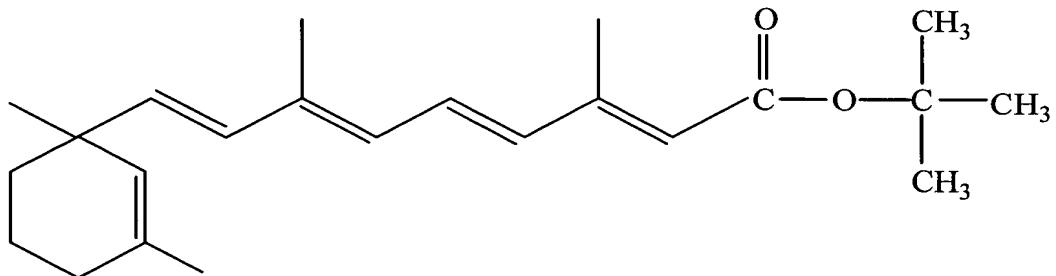
AM80;

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AM580;
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SR 11254;
BMS 185354;
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R_o 25-7386;
BMS 188970;
SR 11004; and
SR 11203.

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34. (Original) The method of claim 24 wherein said ester derivative has the formula:



35. (Canceled)

36. (Original) The method of claim 24 wherein said ester derivative has the formula:

